

# Competency-Based Education Task/Competency List

## Technical Drawing and Design

8434 – 18 Weeks

8435 – 36 Weeks

Competencies designated by bullets in the left-hand column(s) are considered essential statewide and are required of all students. In some courses, all competencies have been identified as essential. Unbulleted competencies and/or locally added competencies should be included as local conditions permit.

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*Note: While the term computer-aided design (CAD) does not appear in each competency, CAD tools and software should be used extensively throughout the course.*

8434 18 Wks	8435 36 Wks	Technical Drawing and Design TASK/COMPETENCY
•	•	1. Define <i>technical drawing</i> .
•	•	2. Describe the history of drawing and design.
•	•	3. Use course experiences to participate in TSA as a leader, manager, or team member.
•	•	4. Apply and use technical drawing and design standards.
•	•	5. Use and maintain a reference library.
•	•	6. Develop patterns.
•	•	7. Prepare technical sketches, using orthographic projections.
•	•	8. Prepare pictorial technical sketches.
•	•	9. Letter freehand.
•	•	10. Correct and revise drawings.
•	•	11. Use and maintain drawing equipment.
•	•	12. Select appropriate drawing media and materials.
•	•	13. Prepare auxiliary views.
•	•	14. Apply basic geometric construction principles.
•	•	15. Apply mathematical calculations involving practical geometry.
•	•	16. Prepare multiview drawings.
•	•	17. Use English and metric measuring devices.
•	•	18. Apply principles of dimensioning.
•	•	19. Prepare sectional and conventional views.
•	•	20. Prepare isometric and oblique drawings.
•	•	21. Gain fundamental computer-aided drawing/design (CAD) ability in drawing and dimensioning an object.
•	•	22. Describe career qualifications, responsibilities, and wages using various resources and the internet.

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